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Spring 3-23-2010

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Recommended Citation

Heinze, Aleksej; Fletcher, Gordon; and Chadwick, Carol, "From Search Engine Optimisation to Search Engine Marketing Management: development of a new area for information systems research" (2010). *UK Academy for Information Systems Conference Proceedings 2010*. 24.

<http://aisel.aisnet.org/ukais2010/24>

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From Search Engine Optimisation to Search Engine Marketing Management: development of a new area for information systems research

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Abstract:

Search Engine Optimisation was a term used by web developers in the late 90s to highlight the importance of increasing a website's position in search engines' results. Further development of the Internet in terms of the diversity of its users and uses such as e-commerce, blogging and wikis have highlighted the need for technical staff to work more closely with marketing professionals resulting in a new area of work – Search Engine Marketing Management.

The paper highlights the emerging role of Search Engine Marketing Management as a new and increasingly important area for future information systems researchers and research. Reaching beyond the 'simple' undifferentiated goal of increasing visitors to a website, a mature perspective of marketing is developing - that of realising strategic marketing objectives. The practical contribution of this paper is found in the development of awareness among management roles of the importance and nuances of search engines and the tactics required to harness the benefits of multiple online communication channels within organisational marketing strategy.

Keywords: search engine optimisation, search engine marketing management, SEO, SEMM

Introduction

Over a decade ago the “100 million customers myth” was an anecdote which summarised our understanding of the internet marketing at the time – “If anyone thinks that just because you’ve established a website you somehow magically can now reach 100 million people, then let me tell you this much: You don’t have a chance” (Smith, 1998). A significant change over the intervening period is the total number of internet users, which superseded 1.7 billion in September 2009 (Internet World Stats, 2010). Nonetheless, the central moral of this story remains and now even Smith's implied possibility of reaching millions of people is recognised as a fallacy. Now, as then, the Internet is not a single undifferentiated market and rather than being considered a mass medium it is better considered as a complex series of highly specialised niche mediums with an equally complex but definable audiences – what is referred to in the parlance of Web 2.0 as the “long tail” (Anderson 2008).

The total global Internet usage and access statistics are reflected within the UK experience and that is despite the most difficult economic times in modern history (Conway and Wallop, 2009). The number of UK households having access to the Internet has now increased to an all time high of 70%. The other significant development is the proportion of those accessing the Internet through a broadband connection – at nearly 90% of all household Internet users (Figure 1). Once online, UK internet users are most likely to send or receive emails. Email activities is undertaken by approximately 89% of those online while the second most popular activity is the use of search engines at 85% (Mintel, 2009).

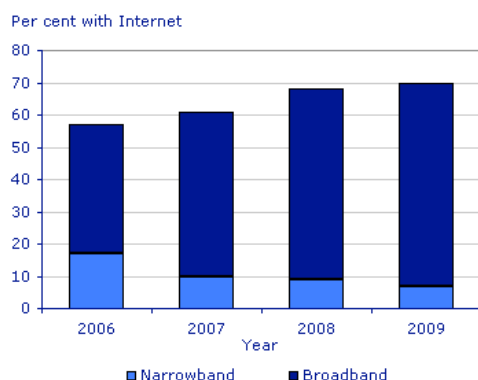


Figure 1: Households with access to the Internet, UK (National Statistics Omnibus Survey, 2009)

A similar trend of increased usage of the Internet is evident within businesses, with 97% of companies having a broadband Internet connection and 93% have some form

of a corporate website (PricewaterhouseCoopers, 2008). An increased online population coupled with the commercial realisation that the Internet offers a communication medium where advertisers can reach their audiences has produced a shift in marketing priorities. As a result the first half of 2009 marked a historic moment when spending on online advertising overtook spending in television (BBC Online, 2009). Further, forecasters believe that online spending in the UK alone will more than double from £9.1 billion to £21.3 billion by the end of 2011 (PayPal, 2009). The scale of this change is all the more significant as it does not include the exposure to international markets and brands that are effectively offered automatically online due to its global borderless nature.

Returning to the “100 million customers myth”, or more appropriately since 2009 the “1.7 billion customers myth”, it is clear that online marketing is gaining more importance. The increasing growth of online prospects who are more likely to spend and the increasing number of organisations offering products and services online has created a heavily competitive environment. Irrespective of this busy market, according to the 2009 Business Pulse survey of SMEs 45% of the businesses surveyed reported that their operations had improved, in particular those who developed a strong online presence (Croxford, 2010). Just as “bricks and mortar” stores compete for a high street position in the most frequented locations, online businesses compete for a strong position in search engine search results rankings. The need to be on the first page of search engine results is increasing. Unlike the analogy with high street stores where there is only one street for each centre of population (and many large retailers choose to occupy every high street) search engine results require presence on the first page of each relevant set of results (a situation more akin to having a presence in the relevant specialist quarter of the medieval town). Studies undertaken in 2008 suggest that approximately 68% of search engine users are clicking search results on the first page (top 10) and 92% of search engine users are clicking on the first three pages (top 30) (iProspect, 2008). This means in real terms, that unless a website appears in the top 30 results of a particular search, it is unlikely to benefit from the forwarded traffic for that particular keyword. However, not all online marketers or corporate website managers are proactive in addressing this search user trend. With the volume of search engine usage at an all time high and the consequent diversity of terms and concepts being sought it is becoming increasingly difficult to track what is being searched for within any given field of business and commerce (Mintel, 2007).

The Shifting Field

The process of being at the top of search results in the 1990s predominantly relied on domain name speculation. Having chosen the most appropriate domain name in the past allowed the domain name owner to be at the top of search results. Domain name speculation is one characteristic hallmark of Web 1.0 methods for gaining a competitive position on the internet. The ability to gain commercial benefits simply from the careful selection of a domain name was partially the result of relatively unsophisticated search algorithms that prioritised the most visible aspects of a website. However, even in this era there were significant but apparently innocent marketing errors most notably including the penisland.com and oddsextractor.com debacles. Search Engine Optimisation (SEO) is a natural development of this original competitive advantage and has been labelled as a Web 2.0 approach (O'Reilly, 2005). The development and clearer articulation of the SEO approach reflects increasingly sophisticated indexing algorithms being utilised by search engine robots that give preference to more 'natural' uses of language. Perhaps ironically, more recent search engine algorithms have given priority to those domains that have been continually registered for longer periods of time including those originally created to take advantage of the earlier and simpler algorithm. The development of SEO methods also tacitly recognises the initiatives and market position of Google within the search engine domain. In effect other search engines indexing algorithms have had to recognise the preferences and indexing priorities of Google as a de facto standard. The consistency of approach has occurred despite the corporate secretiveness of the actual Google indexing algorithm – which, in itself, is not patentable.

Beyond the Web 2.0 buzzword lies a general understanding that users have more engagement or “power” in manipulating a website and its content. Describing the Web 2.0 as the “Read/Write Web” or “Social Web” (Richardson, 2006) itself produces a problematic conundrum as corporate websites are faced with the need to directly engage customers and ultimately even allow them to express themselves. Irrespective of where a customer does express themselves on the Read/Write Web, their references to an organisation or one of its products or services has the potential to eventually compete with the organisation itself. The potential damage that an aggressive user campaign can do to an organisation has already been proven in the

case of etoy.com vs etoys.com (Stallabrass, 2003). In 1999, etoy.com – the website for a Swiss situationist art group - became the vehicle from which an toywar was launched after etoys.com, a key online toy retailer at that time, attempted to claim the former domain. This 'war' parodied the techniques of online business to deconstruct the meaning of e-commerce. The final result was the corporate failure of etoys.com. The technological advancement and capability that has been brought to our Internet use, as well as the shifting marketing needs of organisations towards the Internet now poses the multi-disciplinary dilemma on how best to utilise search engine marketing. The question that is being asked in this current paper is therefore: How can Search Engine Optimisation become an integral part of marketing management?

In answering the question a literature review is undertaken examining the process of search engine optimisation and marketing management. This is followed by a case study that highlights the use of search engine marketing management for an SME. The case study is discussed in relation to the literature highlighting the needs of further research in the area.

Marketing management

Marketing management is a well-developed discipline which can be defined as:

“The Art and Science of choosing target markets and getting, keeping and growing customers through creating, delivering and communicating superior customer value” (Kotler and Keller, 2009)

Marketers also tend to differentiate their field from sales in that they focus on the overall process of understanding a prospect's needs and delivering value to these prospects. Or, as Peter Drucker stated that “the aim of marketing is to make sales superfluous” (Kotler and Keller, 2009). The act of selling tends to focus on the needs and acts to the benefit of the seller, whereas the process of marketing focuses on the needs of the buyer. Marketing also recognises the importance of any engagement, including a casual visit to a website, as the actions of a buyer *in potentia* and endeavours to treat all contact from this point of view.

When considering marketing as a subject area, the classic 4 Ps summarise the areas of concern to a marketer; offering the right Product, at the right Price, in the right Place

using the right Promotion (Waterschoot and van den Bulte, 1992). From the perspective of the Internet, place and promotion figure very prominently and can be addressed directly through the technologies of the Web. However, there are also web based services that are influenced by the product and price aspects. In a marketing conscious organisation, each marketing activity is measured by consideration of its return on investment and customer life time value. These variables are informed by, for example, the number of sales an activity generates and the profit returned through each activity. A marketing activity, in terms of online presence, can therefore be crudely measured by the number of sales that were generated as a result of an online advertisement or in relation to website metrics such as the number of unique visitors per month. In the increasingly sophisticated Web 2.0 environment, marketing activity can also be quantified as the number of followers on *Twitter*, friends on a *Facebook* group page, *StumbleUpon* thumbs up or reposts taken from the corporate blog.

The process and purpose of marketing management can be broadly broken down into four phases; 1) setting goals, 2) understanding prospects, 3) engaging with prospects, and 4) measuring prospects response.

Search Engine Optimisation

In contrast to the long-term view taken by marketing strategists, work undertaken by the technical team or individuals responsible for website maintenance has predominantly focused upon search engine optimisation (SEO). SEO has reached such a degree of acceptance and recognised importance that it has become the focus for corporate training sessions and a question asked, as a verb, of most new website developments, “Has the website been SEOed?” SEO can be defined as a project-managed process that aims to promote a web site’s position towards the top of the search results for particular keywords. A measure for SEO success is usually demonstrated by an increase in a website’s organic traffic. The use of this metric is based on the assumed correlation between an increase in website traffic and an increase in direct sales. SEO activity is clearly demarcated from the use of Pay-Per-Click (PPC) listings, which is the alternative and more expensive route to gaining a listing on the first pages of search results. PPC is offered by all major search engines as an alternative way for website owners to get their website noticed by searchers looking for relevant keywords. PPC and organic SEO are not mutually exclusive

strategies. The developments of the Google algorithm for calculating the Quality Score for PPC listings does suggest that well-optimised organic SEO produces cheaper PPC listings for that same keyword. The corollary set of actions also appears to have a degree of validity (Xing and Lin, 2008). The result is that a PPC campaign can contribute to improved positioning in the organic results. However, attempts to manipulate these relationships can, at least in the context of the Google, result in detrimental effects and even banning from the search engine – the results are described as “negative SEO” (Greenburg, 2007). Despite the risks a range of commercial organisations offer SEO services with varying degrees of success.

The process of organic search engine optimisation usually involves four stages; 1) researching and developing a keyword plan that informs 2) on-page content optimisation, 3) optimising off-page content including link building and 4) monitoring.

When comparing the marketing and the SEO processes the clear parallels emerge:

	Marketing	SEO
Stage 1	Setting goals	Keyword planning
Stage 2	Understanding prospects	On-page content optimising
Stage 3	Engaging with prospects	Off-page content optimising
Stage 4	Measuring	Monitoring

Table 1. Comparison of Marketing and SEO

Case study discussion

“My Panelling” is in the business of selling wall panelling to both national and international customers. One of the main channels for their marketing activities is the Internet and they use their website as the primary marketing tool. The company website was re-designed employing search engine optimisation (SEO) techniques and has since become a major success factor in the online marketing of the business. The company has consistently retained number one ranking for the competitive search term “wall panelling” on Google and a number of other keywords, resulting in around 5 direct sales enquiries daily.

In 2009, it was identified that the website would benefit from visual updating and the introduction of new interactive features based on the latest marketing research. This project, however, ran into difficulties since the newly updated website did not

preserve the initial search engine optimisation work and on its re-launch, the website slid down the web rankings and consequently no online enquiries were received for 3 weeks while the new website was online. A clear example of another type of negative SEO and the sometimes direct correlation between sales and web-based activity. Due to the negative impact of the re-development the old website was re-instated and consequently resulted in the need for the website to be more sensitively updated implementing the principles of Search Engine Marketing Management.

Search engine marketing management

Search engine marketing management (SEMM) takes the concepts found within SEO and integrates marketing management processes that seeks to promote a web site's position towards the top of the search results and producing increases in the pre-defined website specific visitor conversion goals. Whilst the current case study illustrates that there was a good SEO knowledge but poor visual knowledge in the first prototype, it also highlighted that there is a need to combine these two considerations in a compatible and workable manner. Most importantly when considering return on investment, the organisation was keen to have a measure on how many online enquiries were generated by setting their own conversion goals.

Conversion goals differ for all websites, for those offering content online, it will be the length of time someone spends on their web pages. Tracking will also consider which search terms produce the best rates of forward navigation within the site and high average view times. Websites of this type and employing this type of conversion goal will also incorporate consideration of the “bounceback rate”; the percentage of people who navigate to a back from a search engine and then immediately return to the search engines results – presumably to try another result. For example, websites such as bbc.co.uk and other online news providers will be interested in increasing the time readers engage with their information, including flagging 'good' stories, emailing the links of stories to others and following linked stories. Other websites might be emphasise conversion goals that enumerate downloads, emailed enquiries or sales. Table 2 highlights the need to differentiate SEO and SEMM and how these different activities should be considered by website owners.

	SEO	SEMM
Measure	Number of website visitors	Number of successfully converted goals
Feature	Organic SEO and Pay-Per-Click SEO	Integration of SEO with offline marketing communications
Focus	Keywords with high popularity	Keywords that generate return on investment

Table 2: Comparison of SEO and SEMM

From this perspective it is possible to identify SEO as a subset of activities that can be found embedded within SEMM. The commercial and practical advantage of SEMM is that it positions all digital communications and social media within the scope of an organisational marketing strategy and advocates an holistic viewpoint. SEMM also prevents web development from being made a “special case”, positioned as a permanent loss leader or the sole domain of technicians and web developers.

Conclusions and recommendations

Search Engine Marketing Management is a field of study that is just over a decade old. The number of online users both offering and consuming goods and services is steadily growing. This is now backed by investments and infrastructure that the “dot com revolution” of year 2000 did not have – at least partly because the commercialised Internet was an unknown and new quantity and equally because of the excessive levels of unsustainable investment that was placed into unviable business models. The rapid changes in both the scale of usage and technological abilities that can be delivered through the Internet prompts the need for the professionalization of both technically and marketing literate individuals who are able to perform the role of Search Engine Marketing Managers. In the context of Information Systems research SEMM represents the type of contemporary hybridity for which this field of research is already recognised and that drove its earliest theorisation and expansion. In this way there is a natural synergy between the efforts of commercial SEO and SEMM and the interests and knowledge of Information Systems researchers.

SEMM will not necessarily replace the need for sales staff and it will not remove the need for any other activities that organisations have been engaged in historically, such

as exhibitions or shop window. However, newer online business models allow small organisations to compete with the largest 'high street' providers. Free tools available to any SME such as Google Analytics allow anyone to engage meaningfully in the process of search engine marketing management.

We advocate the Information Systems research community to engage with this growing area of applied information systems use. Search engines are arguably the “*über* information system” that already provides a major area for researchers to gather data that is both quantitative and qualitative. Although we have a good basic understanding of how search affects consumers and how we can offer new products and services the academic aspects of this field is very patchy and constantly evolving. Now that the commercial foundations of e-commerce have proven, and continue to prove, themselves in one of the most difficult recessions, it is the role of information systems professionals to collaborate with their peers in marketing departments and develop new models, frameworks and theories surrounding Search Engine Marketing Management.

The findings of the current study are limited as a consequence of examining the activities and experiences of only one company and gaining access to what is increasingly commercially sensitive information will be a persistent challenges to research in the field of SEMM. However, where access is available and the organization itself recognizes the potential benefits of theoried examination we believe that our initial interpretation presented here will be reinforced and refined by further sustained investigation.

The central research questions for Search Engine Marketing Management researchers are to develop our understanding of prospects' behaviour, of identifying their needs and satisfying these in the online world. This suggests that studies within the domain of SEMM will range from idea development to purchasing goods or services online. The increasing diversity of Internet based services deliver through the Web, as XML services or through mobile devices also requires a robust approach to interpreting and understanding organisational use of these technologies in both a systemic – research orientated fashion – and in a way that can assist and support organisations' own use of these technologies to gain competitive advantage.

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